

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [06] beginning on page 2, line 18 with the following amended paragraph:

A central data repository is not necessarily in a peer-to-peer collaboration system because each collaborator has a local copy of the data being collaboratively modified. In order to change the data, either a “push” or a “pull” model may be employed. In a “push” model, a collaborator generates a data change request that is forwarded to each other collaborator. The incoming data change requests are then used by each collaborator to modify its local data copy. In a “pull” model, one collaborator modifies local data and offers up such changes upon asynchronous request. Other collaborators issue requests, fetch and gather changes, and subsequently modify their local data copies to reflect such changes. Examples of this peer-to-peer model are the Kubi Client, developed and marketed by Kubi Software of Lincoln, Massachusetts, and the Groove Workspace collaboration system developed and marketed by Groove Networks, Inc., 100 Cummings Center Suite 535Q, Beverly, MA 019015 that is described in detail at Groove Networks’ web site ~~http://www.groove.net~~. See also U.S. Patent No. 6,446,113 B1.

Please replace paragraph [55] beginning on page 14, line 7 with the following amended paragraph:

In particular, in the case of Windows XP Pro operating system, the Windows shell extension 306 can be implemented by means of a “band object” that generates an “explorer band” graphic display in the Windows shell file system user interface. Band objects and the manner of using them to extend the Windows XP Explorer user interface are described in detail at the Microsoft web site ~~at the URLs~~
~~http://www.microsoft.com/msj/defaultframe.asp?page=/msj/1199/bandobj/bandobj.htm&nav=/msj/1199/newnav.htm and~~
~~http://msdn.microsoft.com/library/default.asp?url=/library/en-us/shelloc/platform/Shell/programmersguide/shell_adv/bands.asp~~). In addition, the shell extension 306 may extend the Windows XP Explorer button bar. In the illustrative embodiment, the Windows Explorer button bar is modified to add the “synchronize” button by a band object

that is created when the collaborative system is installed in the computer where the operating system is running.

Please replace paragraph [68] beginning on page 18, line 6 with the following amended paragraph:

The operation of the web services interfaces is discussed in detail at ~~URLS~~ http://www.groove.net/pdf/gws_features_v25.pdf, http://www.groove.net/pdf/wp_groove_web_services.pdf and http://www.groove.net/pdf/datasheet_gws_gdk.pdf Groove Networks' website and in U.S. Patent application serial no. 10/615,281, filed on July 8, 2003, now U.S. Patent no. 7,363,342, by Weidong Wang, John Burkhardt, and Jack Ozzie and entitled METHOD AND APPARATUS FOR PROVIDING WEB SERVICES IN A COLLABORATIVE COMPUTING SYSTEM. The contents of this application are incorporated herein in their entirety by reference.

Please replace paragraph [106] beginning on page 28, line 12 with the following amended paragraph:

Once a folder has been synchronized, the folder icon displayed in the OS file system user interface display that represents that file is provided with an icon overlay that indicates it is synchronized through the collaborative system. The icon overlay can be similar to the "hand" overlay 114 (Figure 1) displayed by Windows XP Pro file system when a folder is shared over the network. The synchronized folder icon overlay is provided by an icon overlay shell extension, which is only available on Windows 2000 or later. See <http://msdn.microsoft.com/msdnmag/issues/0300/w2kui/default.aspx> ~~for more~~ More details on icon overlay shell extensions are available from Microsoft through its website.

Please replace paragraph [107] beginning on page 28, line 21 with the following amended paragraph:

The "Details" view in Windows Explorer displays columns of information about each file in the file system. In one embodiment, synchronized folders display extended column information (download state, download progress, etc.) for each file. The column extensions are

provided by a column handler shell extension, which is only available on Windows 2000 or later. See <http://msdn.microsoft.com/msdnmag/issues/0300/w2kui/default.aspx> for more ~~More~~ details on column handler shell extensions are available from Microsoft through its website.

Please replace paragraph [109] beginning on page 29, line 5 with the following amended paragraph:

In another embodiment, the context menu for stub files can provide an option for downloading the associated file contents. When the file contents are downloaded, the stub file is upgraded to a file of the necessary type. The context menu options are provided by a context menu shell extension. See http://msdn.microsoft.com/library/default.asp?url=/library/en-us/shelloc/platform/shell/programmersguide/shell_int/shell_int_extending/extensionhandlers/contextmenuhandlers.asp for more ~~More~~ details on context menu shell extensions are available from Microsoft through its website.

Please replace paragraph [110] beginning on page 29, line 12 with the following amended paragraph:

In yet another embodiment, property dialog boxes for synchronized folders can contain additional tabs containing additional information with respect to the collaborative system. This information can include, for example: folder permissions for synchronized shared spaces. Each tab contains a combo box for selecting the synchronized shared space used for displaying the permission and share information. Property sheet shell extension handlers provide the extended tabs in the Property dialog box for the synchronized folder. The above information is only available when the user is logged onto the collaborative system locally. Otherwise, when logged off, the tabs contain placeholder text indicating that the user needs to log onto the collaborative system to obtain information. See http://msdn.microsoft.com/library/default.asp?url=/library/en-us/shelloc/platform/shell/programmersguide/shell_int/shell_int_extending/extensionhandlers/propertyhandlers.asp for more ~~More~~ details on property sheet handlers are available from Microsoft through its website.

Please replace paragraph [122] beginning on page 33, line 13 with the following amended paragraph:

In operation, the file synchronizer first detects file system updates made at the collaborative system sites and the OS file system. This is done by comparing the present state of the collaborative system sites and the present state of the OS file system with the file system snapshot that is maintained in the document share engine 312. Then, any conflict between the conflicting operations in the multiple file systems must be resolved. Typically, the resolution procedure is performed by an algorithm. Any remaining conflicts may require user input. Conventional synchronization techniques and algorithms for resolving conflicts are discussed in detail in an article entitled "What is a File synchronizer?", S. Balasubramaniam and B. C. Pierce, Indiana University CSCI Technical report #507, April 22, 1998, ~~located at~~ <http://www.cs.indiana.edu/pub/techreports/TR507.html> and an article entitled "An Algebraic Approach to File Synchronization", N. Ramsey and E. Csirmaz, Foundations of Software Engineering, 2001, ~~located at~~ <http://www.eecs.harvard.edu/~nr/pubs/sync.pdf>. These articles are hereby incorporated herein in their entirety by reference.